

IN THE CLAIMS:

This listing of the claims replaces all prior versions and listings of the claims in this application.

The text of all pending claims (including any withdrawn claims) is set forth below. Canceled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

Please AMEND claims 1-11 and 27-31 and ADD new claims 36 and 37 in accordance with the following:

1. (Currently amended) ~~An information storage~~ A computer-readable medium for use with a recording and/or reproducing apparatus, the computer-readable medium comprising:

a user data area ~~in which comprising~~ user data is recorded and having first sync patterns; and

an additional data area located ~~in at least one of areas before and~~ and/or after the user data area, ~~and having comprising~~ second sync patterns that are different from the first sync patterns and that ~~allow~~ enable the apparatus to distinguish the additional data area from the user data area, when the computer-readable medium is used with the apparatus;

wherein:

the second sync patterns ~~include~~ comprise:

_____ a third sync pattern ~~having comprising~~ a third sync body and a third sync identification, and

_____ a fourth sync pattern ~~having comprising~~ a fourth sync body and a fourth sync identification, and

the third sync identification is different from the fourth sync identification.

2. (Currently amended) ~~The information storage~~ computer-readable medium of claim 1, wherein ~~at least one of the first and~~ sync patterns and/or the second sync patterns are disposed in plural a plurality of locations, and ~~the one sync patterns are arranged such so~~ that adjacent

~~pairs~~ ones of the ~~one~~ first sync patterns and/or the second sync patterns are separated by equal intervals.

3. (Currently amended) The ~~information storage~~ computer-readable medium of claim 2, wherein the second sync patterns are arranged in a plurality of locations in the additional data area so that a size of each of the ~~a plurality of~~ user data recorded in the user data area and separated by the first sync patterns is equal to a size of each of the ~~a plurality of~~ additional data recorded in the additional data area and separated by the second sync patterns.

4. (Currently amended) The ~~information storage~~ computer-readable medium of claim 3, wherein:

each of the first and second sync patterns comprises ~~sync data that comprises a first sync body and a first sync identification, and~~

that each of the first sync identification, the third sync identification, and the fourth sync identification satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k.

5. (Currently amended) The ~~information storage~~ computer-readable medium of claim 3, wherein:

~~the user data area comprises a plurality of the first sync patterns~~ are arranged in a plurality of locations in the user data area, and

a total size of the additional data recorded in the additional data area is an integer multiple of a size of the ~~each of a plurality of~~ user data recorded between an adjacent pair of in the user data area and separated by the first sync patterns.

6. (Currently amended) The ~~information storage~~ computer-readable medium of claim 2, wherein ~~the user data area comprises a plurality of the first sync patterns~~ are arranged in a plurality of locations in the user data area, and

a total size of the additional data recorded in the additional data area is an integer multiple of a size of the ~~each of a plurality of~~ user data recorded between an adjacent pair of in the user data area and separated by the first sync patterns.

7. (Currently amended) The ~~information storage computer-readable~~ medium of claim 6, wherein:

each of the first and second sync patterns comprises ~~sync data that comprises a first sync body and a first sync identification, and~~

~~that each of the first sync identification, the third sync identification, and the fourth sync identification~~ satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k.

8. (Currently amended) The ~~information storage computer-readable~~ medium of claim 2, wherein:

each of the first and second sync patterns comprises ~~sync data that comprises a first sync body and a first sync identification, and~~

~~that each of the first sync identification, the third sync identification, and the fourth sync identification~~ satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k.

9. (Currently amended) The ~~information storage computer-readable~~ medium of claim 1, wherein the second sync patterns are arranged in a plurality of locations in the additional data area so that a size of each of the a plurality of user data recorded in the user data area and separated by the first sync patterns is equal to a size of each of the a plurality of additional data recorded in the additional data area and separated by the second sync patterns.

10. (Currently amended) The ~~information storage computer-readable~~ medium of claim 1, wherein ~~the user data area comprises a plurality of the first sync patterns are disposed in a plurality of locations in the user data area, and~~

a total size of the additional data recorded in the additional data area is an integer multiple of a size of ~~the each of a plurality of user data recorded between two adjacent in the user data area and separated by the first sync patterns.~~

11. (Currently amended) The ~~information storage computer-readable~~ medium of claim 1, wherein:

each of the first and second sync patterns comprises ~~sync data that comprises a first sync body and a first sync identification, and~~

~~that each of the first sync identification, the third sync identification, and the fourth sync identification~~ satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k.

12-26. (Canceled)

27. (Currently amended) A recording and/or reproducing apparatus for use with an information storage medium, the information storage medium comprising a user data area having comprising first sync patterns, and an additional data area located in at least one of areas before and and/or after the user data area, and having the additional data area comprising second sync patterns that are different from the first sync patterns and that allow enable the apparatus to distinguish the additional data area from the user data area when the information storage medium is used with the apparatus, the apparatus comprising:

a recording and/or reproducing unit to optically transfer ~~data including user data and/or additional data~~ between the apparatus and the information storage medium; and

a controller to control the recording and/or reproducing unit to transfer the user data with respect to the user data area, and to transfer the additional data with respect to the additional ~~information data area;~~

wherein:

the second patterns ~~include comprise:~~

_____ a third sync pattern having comprising a third sync body and a third sync identification, and

_____ a fourth sync pattern having comprising a fourth sync body and a fourth sync identification, and

the third sync identification is different from the fourth sync identification.

28. (Currently amended) The recording and/or reproducing apparatus of claim 27, wherein:

the controller controls the recording and/or reproducing unit to determine the user data area of the information storage medium, ~~wherein:~~

~~the first sync pattern-patterns~~ of the information storage medium ~~is-are~~ disposed in a first location ~~and a second location of plurality of locations in~~ the user data area so as to define a first size of each of a plurality of the user data recorded in the user data area and separated by the first sync patterns,

~~the second sync pattern-patterns~~ of the information storage medium ~~is-are~~ disposed in a first location ~~and a second location of plurality of locations in~~ the additional data area so as to define a second size of each of a plurality of the additional data recorded in the additional data area and separated by the second sync patterns, and

~~wherein the first size of each of the plurality of the user data recorded in the user data area is equal to the second size each of the plurality of the additional data recorded in the additional data area.~~

29. (Currently amended) The recording and/or reproducing apparatus of claim 27, wherein the controller further ~~determines-controls~~ the recording and/or reproducing unit to:

determine another user data area having the-comprising first sync pattern-such-patterns so that the additional data area ~~being-is~~ disposed between the user data area and the another other user data area, and

transfers-transfer the user data with respect to the ~~another-other~~ user data area.

30. (Currently amended) The recording and/or reproducing apparatus of claim 27, wherein:

~~the controller further detects in-each of~~ the first sync pattern-patterns comprises a first sync identification that satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k, and

the controller detects the first sync identification.

31. (Currently amended) The recording and/or reproducing apparatus of claim 30, wherein:

~~the controller further detects in the second sync pattern-a second-each of the third~~ sync identification ~~that-and the fourth sync identification~~ satisfies a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k, and

the controller detects the third sync identification and the fourth sync identification.

32–35. (Canceled)

36. (New) The ~~information storage computer-readable~~ medium of claim 11, wherein each of the first sync body, the third sync body, and the fourth sync body does not satisfy the run-length limited (RLL) (d, k) code having the minimum constraint of d and the maximum constraint of k.

37. (New) The recording and/or reproducing apparatus of claim 31, wherein each of the first sync body, the third sync body, and the fourth sync body does not satisfy the run-length limited (RLL) (d, k) code having the minimum constraint of d and the maximum constraint of k.